



Bronxville School District

Concussion Management Policy

The Board of Education of Bronxville School District recognizes that concussions and head injuries are commonly reported injuries in children and adolescents who participate in sports and recreational activity and can have serious consequences if not managed carefully. Parents and students must be aware that no helmet can guarantee the prevention of serious injury to the head or neck. Therefore, the District adopts the following policy and guidelines to support the proper evaluation and management of head injuries.

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Definition of a Concussion

A concussion is defined as a “traumatic brain injury that occurs from forces applied directly or indirectly to the skull that results in the rapid acceleration and deceleration of the brain.”¹ It may or may not involve loss of consciousness. Recovery from a concussion will vary with each individual. Avoiding re-injury and over exertion until fully recovered are paramount components of concussion management.

Signs and Symptoms

Students who have experienced a concussion may present with all or some of the following:

- Headache
- Dizziness
- Drowsiness/Sleepiness
- Ringing in ears
- Memory problems
- Excessive silliness/giddiness
- Problems focusing
- Feeling depressed or emotional
- Slurred speech
- Problems with balance
- Feeling dazed or confused
- Nausea/Vomiting
- Blurred Vision/Double Vision
- Loss of Orientation
- Sensitivity to light/sound
- Feeling aggressive
- Loss of appetite
- Nervousness
- Sleep disturbances
- Feeling sluggish
- Seeing stars or flashing lights
- Having fatigue or low energy

Complications

Students who have sustained a concussion and that have developed any of the following need to be transported by EMS to the nearest emergency room:

- Deteriorating or loss of consciousness
- Irregular or decreased breathing
- Irregular or decreased heart rate
- Unequal, dilated, or unreactive pupils
- Changes in mental status or extreme drowsiness, attention deficits, confusion, or extreme irritability
- Seizures
- Repeated vomiting
- Slurred speech
- Weakness/numbness in arms/legs with or without the presence of facial drooping

Concussion Management Team

As recommended by the New York State Education Department and Department of Health, the Bronxville School District has established a Concussion Management Team (CMT). This team will work collectively with parent(s) and guardian(s) to monitor an individual student's progress, and will advocate for academic and physical accommodations as appropriate to return to full activities.²

This Concussion Management Team (CMT) will be made up of the following individuals:

- a. School Physician
- b. School Nurse
- c. District Athletic Trainer
- d. Athletic Director
- e. Athletic Coach and/or Guidance Counselor

Recommendations for each role are outlined in the *Guidelines for Concussion Management in the School Setting*, as published by the New York State Education Department (NYSED).

It is the responsibility of the CMT to ensure that the policy is implemented and reviewed biannually.

Prevention and Education

The Bronxville School District recognizes that protecting students from head injuries is one of the most important ways to prevent a concussion. Although the risk of a concussion is present when participating any sport: education, proper athletic equipment, and supervision, will help minimize the risk of such injuries.

- All Equipment issued for athletes by the Bronxville athletic department is certified to meet the national safety standards approved by the National Organization for Care and Safety of Athletic Equipment (NOCASE).

Staff Education

The district athletic trainer will be responsible for the coordination of mandatory biennial concussion training for all coaches, physical education teachers, nurses, and athletic trainers that work with and provide instruction to students engaged in school sponsored athletic activities.

- NYSED has approved the course *Heads Up, Concussion in Youth Sports* for physical education teachers and coaches. It is a free web-based course available at [http://www.cdc.gov/concussion/HeadsUp/online training.html](http://www.cdc.gov/concussion/HeadsUp/online%20training.html).
- NYSED has approved the course *Heads Up to Clinicians* for school nurses and athletic trainers. It is a free web-based course available at <http://preventingconcussions.org/>.
 - This is not a NYS specific training video; therefore the scope of practice of certified athletic trainers and school nurses in NYS might differ from what is described in the training. Registered NYS nurses and ATC must follow NYS law in regards to licensing and scope of practice.

Parent and Athlete Education

- Student athletes will be provided with a copy of the *Heads Up Concussion, Athlete Fact/Information Sheet* at each pre-season meeting for sports.
- Parents and Guardians can find a comprehensive concussion information packet on the Bronxville athletics website. A hard copy will also be provided to each student athlete to take-home in their pre-season meeting.
- Both student-athletes and parents will be required to sign, date and return an acknowledgement stating that the policy has been received and reviewed annually.

Consent

The Bronxville School District will be using a variety of assessment tools to assist in determining a student's ability to return to play. These tools will be used in both baseline testing and in post-concussion assessments. The following briefly describes each assessment device that may be used in conjunction with clinical evaluation:

I. Bronxville Athletics Concussion Evaluation Form

A one-page form developed by the Concussion Management Team. It is a way to document the incident and the signs/symptoms a concussed student may experience immediately after the injury and 15 minutes post-injury. The coaching staff will use this assessment tool when the athletic trainer is not present and a student is being evaluated for a possible concussion.

II. Sports Concussion Assessment Tool (SCAT)

This is a "standardized tool for evaluating injured athletes for concussion" and can be used in athletes aged 13 and older. The district's RN or athletic trainer, when evaluating a student with a suspected concussion, will use this form. Students who participate in school athletics are subject to have a baseline SCAT prior to the start of the season.

III. Immediate Post Concussion Assessment and Cognitive Testing (ImPACT)

ImPACT is a computerized exam that tests different brain functions including memory, reaction times, processing speed, and concentration. The testing information is confidential and kept securely in a database by ImPACT which can only be accessed with a secured password by members of the Concussion Management Team. More information can be found at <https://www.impacttest.com>.

Questions regarding any of the assessment tools mentioned above could be directed to the Athletic Trainer who can be contacted at 914-395-0500 x1016. We ask that parent(s), guardian(s) provide consent to use these tools in baseline and post-concussion assessment with student-athletes.

Student Name: _____
Sport: _____

DOB: _____
Season: _____

Parent Name: _____

Date: _____

Baseline Testing

Parent Signature: _____

Baseline testing will be conducted prior to the beginning of the season for Bronxville students aged 13 and older who participate in the listed sports, as recommended by the 2014 National Athletic Trainer's Concussion Position Statement:

- Football
- Soccer
- Field Hockey
- Ice Hockey
- Basketball
- Lacrosse
- Diving
- Softball
- Baseball
- Cheerleading
- Wrestling
- Pole Vaulting

Athletes who have a significant concussion history or other relevant co-morbidity, such as attention-deficit hyperactivity disorder (ADHD) should be considered for testing on an individual basis. This information will be used to assess any changes in the event a student experiences a concussion. Parents will be notified about the testing and can notify the trainer if they wish to exclude their student athlete from the testing. Results of the testing will be made available to the parents on request. A new baseline examination should be completed annually.

Concussion Management Protocol

The following regulation contains the required protocol for any student over the age of 13 with a suspected concussion. This protocol is to be adhered to regardless of whether or not the student sustained the concussion during a school related activity or outside of school.

In the event that a student sustains a concussion outside of a Bronxville school district sponsored activity or event, the student's parent(s)/guardian(s) are **REQUIRED** to notify the school's nurses office and make them aware of the concussion.

It should be emphasized to all personnel, students, parents and guardians that **NO** athlete will be allowed to return to play the day of injury and that **ALL** students should obtain appropriate medical clearance prior to returning to play or school.

- I. Any student that suffers loss of consciousness, no matter how long its duration, is treated as a medical emergency and should be transported to the most appropriate emergency room, as determined by EMS. The same will be true for any student who is suspected to have a cervical spine injury. Injury to the cervical spine may or may not present with paralysis in the arms/legs, numbness or tingling anywhere in the body. In either case, EMS should be notified by calling 911. In such cases, the student should not be moved and head should be stabilized until EMS arrives.
 - i. Any student with a concussion that results in loss of consciousness is required to sit out from school activities (recess, physical education, sports) for a minimum of seven (7) days before starting the return to play protocol. The return to play protocol may not begin until these seven (7) days are over and the student is symptom free.
- II. In accordance with New York State law, any student without loss of consciousness and suspected of sustaining a concussion must be immediately removed from activity.
- III. Following removal from activity, the appropriate evaluation tool should be used to assess students:
 - i. **Coaches:** fill out the Bronxville Athletics Concussion Evaluation Form and an accident report, contact and notify the ATC.
 - ii. **RN and ATC:** use the SCAT assessment (students aged 13 and older) and fill out an accident report (when appropriate); ATC should be notified. Students under the age of 13 will be evaluated only through clinical assessment.

- IV. As soon as feasible, contact student's parent(s)/guardian(s) and make them aware of the situation. Parents should be given the *Concussion Packet for Parents*, created by the CMT, which is posted on the Bronxville School District's website and provided to students prior to their participation in school athletics.
- V. Once a student has been found to have a concussion, it is the responsibility of the health office to notify the student's guidance counselor who will disseminate information to the appropriate faculty members, on a need to know basis.
 - i. Due to the need for cognitive rest, as student should not be required to write a report if they are not permitted to participate in PE class by their medical provider.
- VI. Students who have experienced two (2) concussions in one (1) season or students who have experienced three (3) concussions in a lifetime are recommended to refrain from contact sport activity. Students who experience four (4) or more concussions in a lifetime can pre-dispose the student to longer recovery time and/or lifetime impairments.
- VII. Once the student has been symptom free for 24 hours, they must be re-evaluated by their physician for written clearance to begin the return to play protocol.
- VIII. A private licensed physician, who is unrelated to the student, preferably with a neurological background, must evaluate all students with suspected concussions for diagnosis and appropriate medical care.
 - i. Student Athletes are encouraged to see an ImPACT CIC physician or a sports medicine physician with experience in evaluating and treating sports related concussions. A list of local physicians can be found on page 14.
- IX. After the student has obtained clearance from a private licensed physician, the Bronxville school district physician must next clear them before starting the return-to-play protocol. This appointment will be arranged by the ATC with the school's RN office. **The school physician will make the final decision when a student will be allowed to return to physical activities.**
- X. When the Bronxville school district medical physician determines it is safe for the student to return to play, the ATC will be notified in writing, that the athlete can begin the return to play protocol.

All students under the age of 13, must have written authorization from their health care provider and be symptom free without medication for 7 days before returning to physical education, recess or any other physical activity at school. These students will not be required to complete the “return-to-play” progression, however will be required to obtain final clearance by the school physician prior to returning to physical education, recess, or any other physical activity.

- i. Due to the need for cognitive rest, as student should not be required to write a report if they are not permitted to participate in PE class by their medical provider.
- ii. A school nurse will notify the physical education teacher that the student has sustained a concussion and will also notify them when the student is cleared.

Concussion Management Check Sheet

Coaches

Concussion that occur during a school related activity/event (i.e. practice/game)

- ☐ Remove from activity (**THEY ARE NOT ALLOWED TO "GO BACK IN"**)
- ☐ Complete Bronxville Athletics Concussion Evaluation Form
- ☐ Notify Parents and provide them with a copy of the *Parent's Concussion Packet*. Also provide them with the Athletic Trainer's contact Information.
- ☐ Notify Certified Athletic Trainer
- ☐ Complete Accident Report and give to athletic trainer within 24-48 hours

COACHES STOP HERE

Nurses

Concussion that occur during a school related activity/event (i.e. physical education, recess, practice/game)

- ☐ Remove from activity
- ☐ Complete SCAT (**ONLY** if student is aged 13 or over)
- ☐ Notify Parents and provide them with a copy of the *Parent's Concussion Packet*. Also provide them with the Athletic Trainer's contact Information.
- ☐ Notify Certified Athletic Trainer and start a flow sheet (**ONLY** if student is aged 13 or over)
- ☐ Notify Guidance Counselor
- ☐ Complete Accident Report and send a copy to the athletic trainer within 24-48 hours

Concussion that occur outside of school

- ☐ Provide parents with a copy of the *Parent's Concussion Packet*
- ☐ Complete SCAT (**ONLY** if student is aged 13 or over)
- ☐ Notify Certified Athletic Trainer and start a flow sheet (**ONLY** if student is aged 13 or over)
- ☐ Notify Guidance Counselor

FOR ALL CONCUSSIONS (SCHOOL RELATED OR NOT)

- ☐ All students 13 and older, once asymptomatic 24 hours need private MD clearance and then clearance from school physician **PRIOR** to beginning the "return-to-play" protocol with the certified athletic trainer.
- ☐ Students younger than 13, can be cleared with **ONLY**:
 - Private MD clearance
 - School MD clearance

Concussion Management Flow Sheet

This flow sheet will be used by Bronxville's school RN, certified athletic trainer (ATC), and school physician to track a student's progress through the concussion return-to-play protocol.

Date: _____ Student Name: _____

Date of Birth: _____ Gender: M F

Date of Incident: _____ Loss of Consciousness: [] Yes [] No

Where did Incident Occur? (Circle One)

Practice Game Recess Physical Education Outside School

(if applicable): Sport: _____ Season: _____

- ☐ Parent's Contacted (given parent concussion packet) Date: _____
- ☐ Guidance Counselor Contacted Date: _____
- ☐ Athletic Trainer Contacted (if applicable) Date: _____

Students (13 and older):

- ☐ Symptom-Free for 24 hours (Phase 1) Date: _____
 - ☐ Private MD clearance (attach to this sheet) Date: _____
 - ☐ School MD clearance to start protocol Date: _____
 - ☐ Phase 2 Complete Date: _____
 - ☐ Phase 3 Complete Date: _____
 - ☐ Phase 4 Complete Date: _____
 - ☐ Phase 5 Complete Date: _____
 - ☐ **Full Clearance** **Date:** _____
- ATC Initials: _____ Date: _____ MD Initials: _____ Date: _____

Students (under 13):

- ☐ Symptom free without medication, 7 days Date: _____
- ☐ Private MD clearance (attach to this sheet) Date: _____
- ☐ School MD clearance Date: _____
- ☐ **Full Clearance** **Date:** _____

Evaluation & Return to Play Protocol

The concussion diagnosis is made through clinical evaluation and supported by assessment tools. Assessment tools include but are not limited to the Bronxville Concussion Evaluation Athletics Form, the Sport Concussion Assessment Tool (SCAT), and ImPACT testing. Once a Concussion diagnosis has been made, the patient should undergo a daily focused examination to monitor the course of recovery.

During the acute (24-48 hours) post-concussion recovery stage, daily testing of neurocognitive function and motor control is typically not needed until the patient is asymptomatic. A concussed athlete or non-athlete, should not return to physical activity on the day of injury.¹ When a student has been cleared by the school physician to begin the "return-to-play protocol," the certified athletic trainer will progress the student through the protocol, regardless of whether or not the student is an athlete and regardless of whether or not the student is "in-season."

The following physical exertion progression will be used for all concussed students aged 13 and older and will begin shortly after they have demonstrated a normal clinical examination and the resolution of concussion related symptoms. Post-concussion assessment tools will be compared to baseline scores and will be used only as aides to clinical evaluation. Assessment tools (i.e. SCAT, ImPACT) will not be used as sole determinant factors in defining a student's readiness to begin or progress through the protocol.

As a guideline, an asymptomatic 24-hour period is suggested between every phase of the protocol. The return-to-play progression is composed of six phases as follows:

I. Phase 1: Rest and Recovery

Complete physical and cognitive rest is required of the student until he/she is symptom free. Once the student has been symptom free for 24 hours, the school RN/ATC should be notified, and the student and parents should be advised to obtain private MD clearance as described on page 9, beginning with step "VII."

II. Phase 2: Light Exercise

Consists of low-impact, non-strenuous, light aerobic activity such as walking or riding a stationary bike, or light elliptical exercise for 15 minutes. No resistance training. If tolerated without return of symptoms over a 24-hour period, the ATC may progress the student to "Phase 3."

Post-Injury SCAT/ ImPACT Test 1

If the student is an athlete, SCAT/ImPACT testing will be conducted during this phase and compared to baseline scores prior to the start the physical

component of this phase. If baseline or better scores are not obtained, the athlete may progress through the program at the discretion of the ATC, based on clinical evaluation.

III. Phase 3: Sport-Specific Activity

Composed of sport-specific activity without the threat of contact. Moderate impact, moderate aerobic activity such as jogging for 20 minutes and/or skills necessary for the activity to which the student will return (i.e. passing a football). Light resistance training. If tolerated without return of symptoms over a 24-hour period, the ATC may progress the student to “Phase 4.”

IV. Phase 4: Non-Contact Training involving others, Resistance Training

Students may participate in drills throughout practice that require no contact (i.e. lay-up drills in basketball). Higher resistance weight training with a spotter is acceptable. If baseline or better scores are obtained and the physical component is tolerated without return of symptoms over a 24-hour period, the ATC may progress the student to “Phase 5.”

Post-Injury SCAT/ ImPACT Test 2

If the student is an athlete, SCAT/ImPACT testing will be conducted again and compared to post-injury test 1 and baseline scores prior to the start the physical component of this phase. If baseline or better scores are not obtained at this time, students will not progress to the next phase unless it is deemed safe by both the athletic trainer and school physician.

****Any deficits in assessment tool (SCAT/ImPACT) scores will be discussed with the school physician prior to full clearance. If deficits in scores exist AND clinical evaluation still determines an athlete to be concussed the school physician and certified athletic trainer will determine the next step on a case-by-case basis.**

V. Phase 5: Unrestricted Training, Full Contact Training

Students may participate in full contact training drills and intense aerobic activity. If tolerated without return of symptoms over a 24-hour period, the ATC will notify and arrange for the student to see the school physician for full-unrestricted clearance.

VI. Phase 6: Return to Play

Return to full activity without restrictions.

The school physician, certified athletic trainer, and Bronxville school district reserve the right to withhold a student from activity regardless of medical clearance by a private physician.

Local Physicians

Bronxville School District has compiled this list of local physicians for reference purposes only.

Farah Hameed, MD

Columbia Orthopedics
155 White Plains Rd.
Tarrytown, New York 10591
(212) 305-4565
<http://childrensorthopaedics.com/staff/hameed.html>

Christi Bevelacqua, MD

Columbia Orthopedics
155 White Plains Rd.
Tarrytown, New York 10591
(212) 305-4565
<http://nyp.org/physician/acbevelacqua>

Arlene Silverio, MD, FAAP

620 East Boston Post Road
Mamaroneck, New York 10543
(914) 777-5437

ImPACT CIC

Thomas S Bottiglieri, DO

300 Engle Street
Englewood, New Jersey 07631
(201) 894-3690

ImPACT CIC

Carol Wurzel, MD

222 N Westchester Ave, Suite 201
White Plains, New York 10604
(914) 698-5544

ImPACT CIC

Angela Gagliardi CPT MD CAQ, CIC

222 N Westchester Ave., Suite 307
White Plains, New York 10604
(914) 220-8711

ImPACT CIC